AMENDMENTS TO THE CLAIMS

The following listing of claims shows all pending claims and indicates whether each claim is currently amended, was previously presented as a new or amended claim in a prior response, remains as originally filed, or is newly presented. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for dynamically setting an optimal base address for a component of a process comprising:

detecting that a process has been loaded from a persistent storage into a memory of a computer system, wherein said process is comprised of one or more components;

for each of said components, determining whether an in-memory base address of a copy of the component loaded into the memory is equivalent to a preferred base address of an on-disk representation of the component stored in the persistent storage; and

in response to determining that for a selected component the in-memory base address is not equivalent to the preferred base address, updating the on-disk representation of the selected component to reflect the in-memory base address.

2. (Original) A computer readable medium having stored thereon computer executable instruction for performing the method of claim 1.

3. (Original) The method of claim 1, wherein detecting that the process has been loaded from the persistent storage into the memory further comprises the steps of:

determining if the process has been loaded into the memory within a specified time limit; and

if the process has been loaded into the memory within the specified time limit, awaiting a detection that another process has been loaded from the persistent storage into the memory.

4. (Original) The method of claim 1, further comprising the step of saving an audit report for recording transaction data associated with the step of updating the on-disk representation of the selected component to reflect the in-memory base address.

5. (Currently Amended) The method of claim 1, wherein the step of determining, for each of said components, whether the in-memory base address of the copy of the component loaded into the memory is equivalent to the preferred base address of the on-disk representation of the component comprises:

creating a list of all of the components in the process; and

for each component in the list, comparing the component's in-memory base address of the copy of the component loaded into the memory to the preferred base address of the on-disk representation of the component.

6. (Currently Amended) The method of claim 1, wherein the step of determining that for the selected component the in-memory base address is not equivalent to the preferred base address further comprises determining that a conflicting component caused a copy of the selected component to be relocated to the in-memory base address.

7. (Original) A computer readable medium having stored thereon computer executable instruction for performing the method of claim 6.

8. (Currently Amended) The method of claim 6, further comprising the step of recording relocation information to a file, and wherein said relocation information identifies the conflicting component, the selected component, the in-memory base address of the copy of the selected component and the preferred base address of the on-disk representation of the selected component.

9. (Original) The method of claim 8, wherein updating the on-disk representation of the selected component to reflect the in-memory base address comprises:

based on the relocation information, changing the preferred base address of the on-disk representation of the selected component to the in-memory base address; and

binding the on-disk representation of the selected component to the in-memory base address.

10. (Original) A computer readable medium having stored thereon computer executable instruction for performing the method of claim 9.

11. (Currently Amended) The method of claim 8, further comprising the steps of:

prior to changing the preferred base address of the on-disk representation of the selected component to the in-memory base address, determining that the copy of the selected component is still loaded in the memory; and

in response to determining that the copy of the selected component is still loaded in the memory, employing a technique to allow the preferred base address of the on-disk representation of the selected component to be changed while the copy of the selected component remains in the memory.

12. (Currently Amended) The method of claim 11, wherein said technique comprises:

renaming the on-disk representation of the selected component from an original name to a new name;

making a copy of the renamed on-disk representation of the selected component; and

renaming the copy of the renamed on-disk representation of the selected component to the original name.

13. (Original) A computer readable medium having stored thereon computer executable instruction for performing the method of claim 12.

14. (Original) The method of claim 1, wherein updating the on-disk representation of the selected component to reflect the in-memory base address comprises:

changing the preferred base address of the on-disk representation of the selected component to the in-memory base address; and

binding the on-disk representation of the selected component to the in-memory base address.

15. (Currently Amended) The method of claim 14, further comprising the steps of:

prior to changing the preferred base address of the on-disk representation of the selected component to the in-memory base address, determining that <u>a copy of</u> the selected component is still loaded in the memory; and

in response to determining that the <u>copy of the</u> selected component is still loaded in the memory, employing a technique to allow the preferred base address of the on-disk representation of the selected component to be updated while the <u>copy of the</u> selected component remains in the memory.

16. (Currently Amended) The method of claim 15, wherein said technique ~~wherein said technique~~ comprises:

renaming the on-disk representation of the selected component from an original name to a new name;

making a copy of <u>the</u> renamed on-disk representation of the selected component; and

renaming the copy of the renamed on-disk representation of the selected component to the original name.

Serial No. 10/062,619
Response to Official Action
Page 6 of 15

    17. (Original) A computer readable medium having stored thereon computer executable instruction for performing the method of claim 16.

Serial No. 10/062,619
Response to Official Action
Page 7 of 15

18. (Currently Amended) A system for dynamically setting an optimal base address for a component of a process comprising:

a persistent storage for storing a process, the process comprising one or more components;

a memory being logically divided into a plurality of in-memory addresses; and

a processor for executing computer-executable instructions for:

detecting that one or more of the components of the process have been loaded from the persistent storage into the memory,

for each of the components, determining whether the in-memory base address of a copy of the component loaded into the memory is equivalent to the preferred base address of the on-disk representation of the component stored in the persistent storage, and

in response to determining that for a selected component the in-memory base address is not equivalent to the preferred base address, updating the on-disk representation of the selected component to reflect the in-memory base address.

19. (Original) The system of claim 18, wherein detecting that the process has been loaded from the persistent storage into the memory further comprises the steps of:

determining if the process has been loaded into the memory within a specified time limit; and

if the process has been loaded into the memory within the specified time limit, awaiting a detection that another process has been loaded from the persistent storage into the memory.

20. (Original) The system of claim 18, wherein the processor executes further computer-executable instructions for: creating an audit report for recording transaction data associated with updating the on-disk representation of the selected component to reflect the in-memory base address.

21. (Currently Amended) The system of claim 18, wherein determining, for each of said components, whether the in-memory base address of the copy of the component loaded into the memory is equivalent to the preferred base address of the on-disk representation of the component comprises:

creating a list of all of the components in the process; and

for each component in the list, comparing the component's in-memory base address of the copy of the component loaded into the memory to the preferred base address of the on-disk representation of the component.

22. (Currently Amended) The system of claim 21, wherein determining that for the selected component the in-memory base address is not equivalent to the preferred base address further comprises determining that a conflicting component caused a copy of the selected component to be relocated to the in-memory base address.

23. (Currently Amended) The system of claim 22, wherein the processor executes further computer-executable instructions for recording relocation information to a file; and

wherein said relocation information identifies the conflicting component, the selected component, the in-memory base address of the copy of the selected component and the preferred base address of the on-disk representation of the selected component.

24. (Original) The system of claim 23, wherein updating the on-disk representation of the selected component to reflect the in-memory base address comprises:

based on the relocation information, changing the preferred base address of the on-disk representation of the selected component to the in-memory base address; and

binding the on-disk representation of the selected component to the in-memory base address.

25. (Currently Amended) The system of claim 24, wherein the processor executes further computer-executable instructions for:

prior to changing the preferred base address of the on-disk representation of the selected component to the in-memory base address, determining that the copy of the selected component is still loaded in the memory; and

in response to determining that the copy of the selected component is still loaded in the memory, employing a technique to allow the preferred base address of the on-disk representation of the selected component to be changed while the copy of the selected component remains in the memory.

26. (Currently Amended) The system of claim 25, wherein said technique comprises:

renaming the on-disk representation of the selected component from an original name to a new name;

making a copy of the renamed on-disk representation of the selected component; and

renaming the copy of the renamed on-disk representation of the selected component to the original name.

27. (Original) The system of claim 18, wherein updating the on-disk representation of the selected component to reflect the in-memory base address comprises:

based on the relocation information, changing the preferred base address of the on-disk representation of the selected component to the in-memory base address; and

binding the on-disk representation of the selected component to the in-memory base address.

28. (Currently Amended) The system of claim 27, wherein the processor executes further computer-executable instructions for:

prior to changing the preferred base address of the on-disk representation of the selected component to the in-memory base address, determining that a copy of the selected component is still loaded in the memory; and

in response to determining that the copy of the selected component is still loaded in the memory, employing a technique to allow the preferred base address of the on-disk representation of the selected component to be changed while the copy of the selected component remains in the memory.

29. (Currently Amended) The system of claim 28, wherein said technique comprises:

renaming the on-disk representation of the selected component from an original name to a new name;

making a copy of the renamed on-disk representation of the selected component; and

renaming the copy of the renamed on-disk representation of the selected component to the original name.

30. (New) The system of claim 18 wherein updating the on-disk representation of the selected component comprises:

calling an Application Programming Interface function provided by an operating system of the computer system, wherein said Application Programming Interface function is programmed to change the on-disk representation of the selected component.

31. (New) The system of claim 30, wherein the Application Programming Interface function is RebaseImageEx.

32. (New) The system of claim 30, wherein updating the on-disk representation of the selected component further comprises:

calling a second Application Programming Interface function provided by the operating system, wherein said second Application Programming Interface function is programmed to bind the on-disk representation of the selected component to the in-memory base address.

33. (New) The system of claim 32, wherein the second Application Programming Interface function is BindImageEx.

34. (New) The method of claim 1, wherein updating the on-disk representation of the selected component comprises:

calling an Application Programming Interface function provided by an operating system of the computer system, wherein said Application Programming Interface function is programmed to change the on-disk representation of the selected component.

35. (New) The method of claim 34, wherein the Application Programming Interface function is RebaseImageEx.

36. (New) The method of claim 34, wherein updating the on-disk representation of the selected component further comprises:

calling a second Application Programming Interface function provided by the operating system, wherein said second Application Programming Interface function is programmed to bind the on-disk representation of the selected component to the in-memory base address.

37. (New) The method of claim 36, wherein the second Application Programming Interface function is BindImageEx.